

## REMARKS

This is intended as a full and complete response to the Office Action dated January 12, 2005, having a shortened statutory period for response set to expire on April 12, 2005. Please reconsider the claims pending in the application for reasons discussed below.

### ***Claim Rejections – 35 U.S.C. § 112***

Claim 20 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner states that claim 20 recites the limitation “the rod” in line 1 and that there is insufficient antecedent basis for this claim limitation. Applicant amended claim 20 to provide antecedent basis for the claim limitation and therefore respectfully requests removal of the rejection and allowance of claim 20.

### ***Claim Rejections – 35 U.S.C. § 102***

Claims 1-7 and 9-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Weirich* (GB Patent Number 2092717). In response, Applicant respectfully traverses the rejection. Additionally, Applicant canceled claim 4 without prejudice.

Regarding claims 1-3, 5-7 and 9, *Weirich* discloses a hydraulic control valve assembly that is a regularly sized valve for use in a mine roof support system. The limitation of the microvalve having an external housing diameter of less than ten millimeters is supported by paragraph three of the present specification. Additionally, paragraph four of the specification addresses why “known constructions of valves having ordinary dimensions cannot be scaled down for use in microvalves.” Thus, *Weirich* does not teach, show, or suggest the element of amended claim 1 of “wherein the valve is a microvalve having an external housing diameter less than ten millimeters.” Because *Weirich* does not teach each and every element of claim 1 and its dependent claims 2, 3, 5-7 and 9, Applicant respectfully requests removal of the anticipation rejection to these claims under *Weirich* and allowance thereof.

Regarding claims 10-17, a valve housing in *Weirich* completely lacks any seals that externally surround it. Thus, *Weirich* does not teach, show, or suggest the element

of amended claim 10 of “seals externally surrounding the housing and arranged between the ports to sealingly engage a recess within a valve block that the valve is placed.” This failure of *Weirich* to teach each and every element of claim 10 and its dependent claims 11-17 prevents *Weirich* from anticipating these claims. Accordingly, Applicant respectfully requests removal of the § 102 rejection to claims 10-17 under *Weirich* and allowance of these claims.

Claims 1, 2, and 4-9 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Seaney* (U.S. Patent Number 5,782,269). In response, Applicant respectfully traverses the rejection. Additionally, Applicant canceled claim 4 without prejudice.

A poppet type check valve disclosed in *Seaney* is a regularly sized valve utilized in an automatic track adjuster. Again, the limitation regarding the microvalve dimension and why “known constructions of valves having ordinary dimensions cannot be scaled down for use in microvalves” is discussed in the present application at paragraphs three and four. Therefore, *Seaney* does not teach, show, or suggest the element “wherein the valve is a microvalve having an external housing diameter less than ten millimeters,” as recited in amended claim 1 and its dependent claims 2 and 4-9. Because *Seaney* does not teach each and every element recited in claim 1 and its dependent claims, Applicant respectfully requests removal of the rejection to claims 1-2 and 4-9 under *Seaney* and allowance of these claims.

Claims 18 and 19 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Deem* (U.S. Patent Number 3,838,895). Applicant respectfully traverses this rejection to claims 18 and 19.

As shown in Figure 2 of *Deem* and described in the specification, reference number 86 is a check valve means, reference number 35 is a pump, and reference number 76 is a larger portion of a stepped piston (reference number 72). The Examiner uses the check valve means (86) to designate the “pressure relief valve” recited in claims 18 and 19 and the larger portion (76) of the piston (72) to designate the second portion recited in claims 18 and 19. Claims 18 and 19 include the element “a pressure relief valve disposed in a fluid pathway between the pump and a second portion of the pilot actuator.” In contrast, the check valve means (86) of *Deem* is not disposed between the pump (35) and the larger portion (76) of the piston (72). Accordingly,

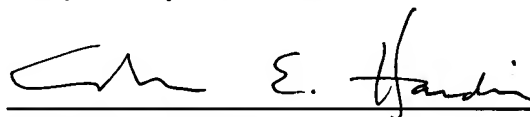
because *Deem* fails to teach, show, or suggest each and every element recited in claims 18 and 19, Applicant respectfully requests removal of the rejection to claims 18 and 19 and allowance of these claims.

### ***Conclusion***

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the Office Action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests allowance of the claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. E. Hardie", is written over a horizontal line.

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